

ABSTRACT

METHOD FOR DETERMINING A MASS FLOW OF A FLUID FLOWING IN A PIPE

A method wherein vortices are produced in a flowing fluid by means of a bluff body and the repetition frequency with which the vortices are produced is determined. The repetition frequency is used to determine a flow rate measurement value, which represents a volume flow or a flow velocity. Additionally, pressures p_1 and p_2 acting in the flowing fluid at two measurement points separated from one another in the flow direction are registered. At least one of these pressures changes at least as a function of the repetition frequency. The registered pressures p_1 , p_2 are used to produce a pressure measurement value, which represents an average dynamic pressure acting in time average at least partly in the flow direction. The pressure measurement value and the flow rate measurement value are used to determine a mass flow rate value for the fluid.